

BY OUTRAM BANGS AND THOMAS E. PENARD.

IN the present paper we deal chiefly with some neotropical birds, erecting two new genera, describing one new species and five new subspecies, and reviewing the forms of a number of species, involving some changes and corrections in the nomenclature and synonymy of several forms.

All measurements are in millimeters; the tail is measured from the base of the free tail feathers to the extreme tip.

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A NEW SUBSPECIES OF CROTOPHAGA SULCIROSTRIS SWAINSON.

CROTOPHAGA SULCIROSTRIS PALLIDULA, subsp. nov.

TYPE.—M. C. Z. 217,148. Adult ♂. Lower California: San José del Cabo, 12 October, 1887. M. Abbott Frazar.

SUBSPECIFIC CHARACTERS.—Similar to *Crotophaga sulcirostris sulcirostris* Swainson of Mexico, and of about the same size, but much paler and with less purplish iridescence; the U-shaped iridescent markings of the back and breast paler and duller greenish, not so brilliant; the dull purplish bronze of the head and neck of true *sulcirostris* replaced by paler, more grayish bronze; the lustreless parts of the body-feathers grayish brownish black instead of dull black.

MEASUREMENTS.—TYPE. Adult ♂ — wing, 143.0; tail, 186.0; tarsus, 35.5; culmen, 27.5.

Male (eight specimens) — wing, 137.0–143.0 (139.4); tail, 177.0–188.0 (184.1); tarsus, 32.0–36.0 (34.6); culmen, 26.5–28.5 (27.3).

Female (ten specimens) — wing, 133.5–142.0 (137.1); tail, 170.5–185.5 (178.8); tarsus, 31.0–35.0 (32.9); culmen, 25.0–27.0 (26.1).

SPECIMENS EXAMINED.—*C. s. sulcirostris*: — Texas: Lomita Ranch, 1 ♂; Brownsville, 1♂, 1♀. Mexico: Monterey, 2 ♀♀, 1 unsexed; Tamaulipas, 4 ♂♂; Escuinapa, 1 ♂, 1 ♀; Plains of Colima, 1 ♀;

Jalapa, 1 ♀, 1 unsexed; Orizaba, 2 ♀ ♀; Quintana Roo, 1 ♂; Tehuantepec, 1 ♂; Yucatan, 1 ♂, 1 ♀, 2 unsexed. British Honduras: Belize, 1 ♂. Honduras: Yaruca, 1 ♂, 2 ♀ ♀; Ceiba, 1 ♂. Costa Rica: Sipurro, 1 ♂. Colombia: Santa Marta, 2 ♂♂. Unspecified, 1 immature. Total, 32.

C. s. pallidula:—Lower California: San José del Cabo, 8 ♂♂, 10 ♀ ♀. Total, 18.

REMARKS.—Eighteen adults of this new form, laid out beside a series of nearly double that number from various points in Mexico and Central America, are strikingly different; the pale, dull colors of the Lower Californian bird cannot be matched by any specimen in our series of true *sulcirostris*. The difference is noticeable at a glance but rather difficult to describe. Brewster (Bull. M. C. Z., 1902, 40, p. 100), in his account of the birds of the Cape Region of Lower California, states that the Groove-billed Ani is not known to occur in central and northern Lower California, and that the colonies which have become established in the Cape region were probably originated by birds which came from western Mexico. However this may be, the isolated colony of Cape St. Lucas has developed into a very distinct form, worthy of recognition.

THE FORMS OF DENDROPLEX PICUS (GMELIN).

Having discovered in the Lafresnaye collection the type of *Dendrocolaptes altirostris* Léotaud, we have examined all the specimens of *Dendroplex picus* in the M. C. Z., and have come to the conclusion that there are five forms, Léotaud's bird being the Trinidad representative of the species. The material examined includes specimens from Santa Marta (Colombia), Margarita Island, Trinidad, Guiana, Upper Amazon, and eastern and southeastern Brazil.

In general, immature birds of all forms have smaller, more blackish bills than do adults, and old skins which have been preserved in cabinets for a long time are sometimes more rufous in appearance than fresh specimens. These facts should be borne in mind in making comparisons.

Following is a brief summary of the six forms recognized:—

1. DENDROPLEX PICUS PICUS (Gmelin).

Oriolus picus Gmelin, Syst. nat., 1788, 1, p. 384 ("Habitat in Gujanæ arboribus"—based on Daubenton's, Pl. enl., 605 Cayenne).

SUBSPECIFIC CHARACTERS.— Under parts dark, more olive — not far from Saccardo's umber of Ridgway; upper back similar to under parts, but slightly more rufous; lower back, wings, and tail rufous-chestnut: the pale spots of the under parts small and less distinct on the belly.

MEASUREMENTS.— Adult (twelve specimens) — wing, 93.0–99.5 (96.7); tail, 70.0–79.5 (74.9); tarsus, 19.5–21.5 (20.7); culmen from base of forehead, 27.0–30.5 (29.0).

RANGE.— Guiana, eastern Venezuela (Orinoco Valley), northern Brazil (Rio Negro, Rio Branco).

SPECIMENS EXAMINED.— Dutch Guiana: Vicinity of Paramaribo, 13; "Surinam" (Cragin), 1. British Guiana: Aunai (Whitely), 1. Total, 15.

REMARKS.— Unfortunately we have not seen specimens from the type-locality, Cayenne, but we assume that Surinam birds are sufficiently close for purposes of comparison. Menegaux and Hellmayr (Mém. Soc. hist. nat. Autun, 1906, 19, p. 109) give measurements of a male and female from Cayenne which are slightly larger than the birds from Surinam listed by them and those examined by us. The difference, however, is very slight and probably would not prove to be constant in larger series.

A male (Penard collection) from Aunai, British Guiana, collected by Henry Whitely, 14 March, 1890 (or 1891), is very rufous, and resembles specimens from Bahia, but in this case we think the rufous tone is due to fading and not to individual or seasonal variation. Specimens taken near Paramaribo in March do not differ in shade from others taken in January, February, April, May, June, or December, all having the dark olive tone. On the other hand, a very old specimen (M. C. Z. 84,580) collected by Cragin in Surinam, has not faded appreciably and agrees very well with more recently collected specimens from the same locality.

2. *DENDROPLEX PICUS ALTIROSTRIS* (Léotaud).

Dendrocolaptes altirostris Léotaud, Ois. Trin., 1866, p. 166 (Trinidad).

TYPE.— M. C. Z. 77,156, Lafr. coll. 2,279. Adult ♀.

SUBSPECIFIC CHARACTERS.— Similar to *Dendroplex picus picus* Gmelin, but slightly larger: spots on under parts larger and more distinct, especially on the belly; bill very much larger, thicker, and heavier; culmen more curved.

MEASUREMENTS.— **TYPE.** Adult ♀ — wing, 108.0; tail, 85.5; tarsus, 21.5; culmen from base of forehead, 32.5.

M. C. Z. 84,578, Lafr. coll. 8,490. Adult — wing, 111.0; tail, 83.5; tarsus, 24.0; culmen from base of forehead, 35.5.

RANGE.— Trinidad.

SPECIMENS EXAMINED.— Trinidad: 1 adult and 1 immature; unspecified, 1. Total, 3.

REMARKS.— In his work on the birds of Trinidad, Léotaud (*loc. cit.*) described a new Woodhewer under the name *Dendrocolaptes altirostris*, stating that the validity of the species had been confirmed by Lafresnaye to whom the type had been sent. Lafresnaye was to have returned it to Léotaud, but owing to the Baron's death this had never been done. Léotaud (*loc. cit.*, p. 167) says:

“*L'altirostris* comme le *picus* se tient parmi les mangliers. Il paraît être très rare ici, car je n'ai jamais pu obtenir qu'un seul exemplaire. Je l'ai envoyé à M. de Lafresnaye qui daignait alors m'accorder pour mon travail son concours aussi bienveillant qu'éclairé. Il devait, à mon prière, me renvoyer l'exemplaire quand la mort l'a surpris: mon *altirostris* fait donc partie jusqu'aujourd'hui de la collection qu'a laissée le Baron.”

Chapman did not meet with the species while in Trinidad, but on the strength of Lafresnaye's opinion, as cited by Léotaud, included it under the name *Dendrocolaptes altirostris* in his list of the birds of Trinidad (*Cf. Bull. Amer. mus. nat. hist.*, 1894, 6, p. 48). On the other hand Hellmayr (*Nov. zool.*, 1906, 13, p. 59) disposes of the name in the hypothetical list at the end of his paper on the birds of Trinidad, giving his reasons for so doing.

The type, which is easily identified from Léotaud's description, has two labels — one in a handwriting we take to be Léotaud's, bearing simply the words “*Xiphorynchus altirostris*, femelle,” and the other made out by Lafresnaye reading, “il ne diffère du *picus* que par sa mand. plus arquée et par ses plumes écailleuses ventrales plus grandes et plus prolonguées vers l'anus.”

The second specimen, M. C. Z. 77,155, Lafr. coll. 2,280, apparently had also been sent to Lafresnaye by Léotaud. It also has two labels — the first on paper exactly like that of the type, and in the same handwriting, bearing the words, “*Dendroplex nigrirostris?* organes sexuels atrophiés,” and the second made out by Lafresnaye, reading, “*Dendroplex picus* ♀ ? rostro et ales brevioribus Trinidad.” This specimen is obviously an immature bird, with blackish bill, the culmen less curved than in the type of *altirostris*, but much heavier than in true *picus* of Guiana. The spotting of the under parts is less pronounced than in the adult, but decidedly more so than in true *picus*.

A third specimen, M. C. Z. 84,578, Lafr. coll. 8,490, the original label of which is missing, apparently also belongs to this race. It has the characteristic heavy bill, is even larger than the type of *altirostris*, and the under parts are spotted well down the lower belly. It cannot be an example of *D. p. kienerii*, which is also large, because it entirely lacks the deep cinnamon-rufous tone of that form.

3. DENDROPLEX PICUS KIENERII (Des Murs).

Dendrorhina kienerii Des Murs in Castelnau, Voy. Ois., 1856, p. 45, pl. 14, fig. 1 (Ega, Rio Solimoëns).

TYPE.—Paris Museum, *vide* Menegaux and Hellmayr.

SUBSPECIFIC CHARACTERS.—Similar to *Dendroplex picus picus* Gmelin, but larger, and more cinnamon-rufous above and below.

MEASUREMENTS.—Im.—wing, 106.0; tail, 81.0; tarsus, 22.0; culmen from base of forehead, 27.5.

RANGE.—Central and western Brazil, eastern Bolivia, eastern Peru.

SPECIMEN EXAMINED.—Upper Amazon: one immature bird, Lafr. coll. 2,281, "haut amaz."

REMARKS.—Although our specimen is an immature bird with blackish bill, its large size and darker, richer color, distinguish it at once from true *picus*.

4. DENDROPLEX PICUS BAHIAE, subsp. nov.

TYPE.—M. C. Z. 73,792. Bahia (trade skin).

SUBSPECIFIC CHARACTERS.—Similar to *Dendroplex picus picus* Gmelin, but paler and more rufous, less olivaceous throughout; spotting on head larger and more conspicuous, and whiter, less buffy.

MEASUREMENTS.—TYPE. Adult — wing, 100.00; tail, 79.5; tarsus, 20.0; culmen from base of forehead, 32.0.

Adult (six specimens)—wing, 100.0–104.0 (101.5); tail, 79.5–85.0 (81.6); tarsus, 18.5–21.0 (20.0); culmen from base of forehead, 28.0–32.0 (30.1).

RANGE.—Eastern Brazil.

SPECIMENS EXAMINED.—Eastern Brazil: Bahia (trade skins), 3; Ceará (trade skin), 1; Boã Vista (Schwanda), 3; Rio de Janeiro, 1. Total, 8.

REMARKS.—Very likely the rufous appearance of the old Bahia skins is in part due to the age of the specimens, but we do not think it is wholly so. Three birds from Boã Vista (Penard coll.), collected by Schwanda in 1907, are of a deeper rufous shade, probably because they are much fresher. None has the olivaceous tone of the Guiana specimens. Perhaps birds from eastern Brazil average slightly larger than *D. p. picus*, as our measurements indicate, but our series is much too small to substantiate this.

5. DENDROPLEX PICUS PICIROSTRIS (Lafresnaye).

Dendrocolaptes picirostris Lafresnaye, Rev. zool., 1847, p. 76 (Colombia: Rio Hacha).

COTYPE.—M. C. Z. 77,106, Lafr. coll. 2,283. Cotype.—Acad. nat. sci. Philadelphia, 6,979.

SUBSPECIFIC CHARACTERS.—Paler than *Dendroplex picus picus* Gmelin, back more chestnut-rufous, less olivaceous; throat white, without any, or with very little, dusky edges to the feathers; superciliary stripe fairly well marked; bill stouter.

MEASUREMENTS.—COTYPE.—Adult —wing, 104.0; tail, 80.0; tarsus, 22.0; culmen from base of forehead, 32.0.

Adult (six specimens) —wing, 96.0–104.0 (100.3); tail, 80.0–85.0 (82.0); tarsus, 22.0–22.5 (22.1); culmen from base of forehead, 29.0–32.0 (30.7).

RANGE.—Central and western Venezuela, Colombia.

SPECIMENS EXAMINED.—Colombia: Rio Hacha, 3 ad., including the type; near Santa Marta, 2 ♂♂, 1 ♀; no locality, 1. Total, 7.

REMARKS.—Cherrie (Mus. Brooklyn inst. Sci. bull., 1916, 2, p. 268) records specimens of both *D. picus* and *D. picirostris* taken at Ciudad Bolivar. He observes that on his previous expeditions he had not met with *picus* until he reached Perico.

D. picus and *D. picirostris* are two very different looking birds, and intermediate forms are not known to exist. The occurrence of both at Ciudad Bolivar seems to indicate that they are distinct species, and they have been so considered for a long time. Chapman (Bull. Amer. mus. nat. hist., 1917, 36, p. 422), however, treats *picirostris* as a subspecies of *picus*. This view is in accordance with the principles announced by him in his remarks on the treatment of subspecies (Chapman, *loc. cit.*, p. 175–179). He also met with *picus* in the

Bogotá region from where it had never been reported before and where he also found *picrostris*.

Although we follow Chapman in treating *D. picrostris* as a race of *D. picus*, we strongly suspect that the two are specifically distinct.

Stone (Proc. Acad. nat. sci. Phila., 1899, p. 51) lists a specimen as the type of *D. picrostris*, acquired by the Philadelphia Academy in the Delatre collection. The label of this specimen bears the locality N. Grenada, but does not specifically refer to the type-locality, Rio Hacha, mentioned in the original publication. In the Lafresnaye collection there are three specimens all marked as having come from Rio Hacha. One specimen in particular also refers to Delatre, its label reading as follows: "*Dendroplex picrostris* nob. rev. 1847, p. 76, N^o Grenada (Rio hacha delatr.)". This specimen, we think, has at least as good a claim to being the type as the one in the Philadelphia Academy's collection. We therefore consider them both cotypes.

6. DENDROPLEX PICUS LONGIROSTRIS Richmond.

Dendroplex longirostris Richmond, Proc. U. S. N. M., 1896, 13, p. 674 (Margarita Island).

TYPE.—U. S. N. M.

SUBSPECIFIC CHARACTERS.—Similar to *Dendroplex picus picrostris* (Lafresnaye), and of about the same size, but bill longer and heavier, and tail shorter; feathers of throat whiter, without dark edges, and extending more over chest; the pale centers of feathers of lower breast broader.

MEASUREMENTS.—Adult (two specimens) — wing, 100.0–102.0 (101); tail, 76.0–79.0 (77.5); tarsus, 22.0–23.0 (22.5); culmen from base of forehead, 33.0–35.5 (34.3).

RANGE.—Island of Margarita.

SPECIMENS EXAMINED.—Two adult males from the type-locality.

REMARKS.—If it should eventually be shown that *D. picrostris* is a distinct species, then *D. longirostris* ought to be considered a subspecies of it rather than of *D. picus*.

THE IDENTITY OF TODIROSTRUM SPICIFERUM LAFRESNAYE.

In the catalogue of the Lafresnaye collection, compiled by Verreaux, two specimens, 4,632 and 4,633, are listed as types of *Todirostrum spiciferum* Lafresnaye (Rev. zool., 1846, p. 363, "hab. in Brasilia"—

Rio Negro, ex Berlepsch). Both specimens are now in the M. C. Z. The first of these we identify as the bird generally known as *Lophotriccus spiciferus* (Lafresnaye), and the second the bird named *Motacilla galeatus* Boddaert (Tabl. Pl. enl., 1783, p. 24 — Cayenne, ex Daubenton's Pl. enl. 391, fig. 1).

The original labels, however, reveal the fact that the second specimen only is the type of Lafresnaye's *Todirostrum spiciferum*. The label of this specimen, in Lafresnaye's handwriting, reads, "Tod. spicifer, T. porte épi nob.," and refers to the original publication. The description agrees perfectly with the specimen, which proves to be *Colopteryx galeatus* (Bodd.). Hellmayr (Abh. K. Bayer. akad. wiss., 1912, 26, abh. 2, p. 22, footnote) was the first to notice the discrepancy between the diagnosis of *T. spiciferum* and the Upper Amazonian bird to which the name *Lophotriccus spiciferus* has been applied by authors, and with his customary keenness suspected its identity. Compared with fresh specimens from Surinam (Penard collection), Lafresnaye's type is very similar, except that the bill is now of a horn color, and the coloration, in general, has a rather faded and slightly more brownish appearance, which, of course, is readily accounted for by the age of the specimen. Thus the name *Todirostrum spiciferum* Lafresnaye sinks into the synonymy of *Colopteryx galeatus* (Boddaert).

By this unfortunate disposition of *T. spiciferum*, the genera *Colopteryx* and *Lophotriccus* are both seriously affected. *Lophotriccus* was proposed, without designation of type, by Berlepsch (Proc. Zool. soc. London, 1883 [= 1884] p. 553), who listed as representative species *L. spicifer* (Lafr.) and *L. squamicristatus* (Lafr.). The genotype was subsequently designated by Selater (Cat. birds Brit. mus., 1888, 14, p. 86), who selected *Lophotriccus spicifer* Lafresnaye. *Lophotriccus* is thus a synonym of *Colopterus* Cabanis. The latter being preoccupied, Ridgway (Proc. U. S. N. M., 1888, 10, p. 519) has substituted *Colopteryx*, by which name the genus has been known ever since. But *Colopteryx* is antedated by *Lophotriccus* and must be replaced by it. The only species in the genus should thus be called *Lophotriccus galeatus* (Boddaert).

The genus erroneously known as *Lophotriccus* is now without a name, since *Orchilus* Cabanis, which would otherwise be applicable here, is preoccupied by *Orchilus* Morris (Cf. Oberholser, Proc. Biol. soc. Wash., 1918, 31, p. 203), and since *Orcheilus* Gray is merely an emendation. We therefore propose for this genus

COMETORNIS, gen. nov.

TYPE.—*Todirostrum squamaecrista* Lafresnaye, Rev. zool., 1846, p. 363.

GENERIC CHARACTERS.—(See Ridgway, Bull. 50, U. S. N. M., 1907, pt. 4, p. 369, under *Lophotriccus*).

The specimen, Lafr. coll. 4,632, listed by Verreaux as one of the types of *T. spiciferum*, has a label, in Verreaux's handwriting, and is marked as having come from Peru instead of Brazil. This specimen does not agree with the description, and there is nothing to support Verreaux's statement that it is a type. It is, however, the bird to which the name *spiciferum* has been erroneously applied by authors. We propose to call it

COMETORNIS VITIOSUS, sp. nov.

TYPE.—M. C. Z. 77,348, Lafr. coll. 4,632. "Perou" (Verreaux).

SPECIFIC CHARACTERS.—Differs from other species in this genus in having the elongated crest-feathers edged with whitish instead of cinnamon or cinnamon-rufous.

DESCRIPTION OF TYPE.—Top of head blackish, the elongated crest-feathers edged with whitish; upper parts olive-green, wings and tail dusky, margined with olive; wing-coverts and outer secondaries broadly tipped and edged with yellowish green; under parts grayish, slightly striped, breast with dusky markings; lower belly, sides and under tail-coverts pale greenish yellow.

MEASUREMENTS.—TYPE. Adult — wing, 51.0; tail, 37.5; tarsus, 15.0; exposed culmen, 11.0.

REMARKS.—We would have preferred a freshly collected specimen for the type, rather than the old Lafresnaye specimen, but we have no other. Fortunately it is in a good state of preservation.

The species and subspecies of the new genus are: —

COMETORNIS SQUAMAECRISTA SQUAMAECRISTA (Lafresnaye).

Todirostrum squamaecrista Lafresnaye, Rev. zool., 1846, p. 363 (Bogotá).

TYPE.—M. C. Z.

COMETORNIS SQUAMAECRISTA PILEATUS (Tschudi).

Euscarthmus pileatus Tschudi, Archiv naturg., 1844, 10, bd. 1, heft. 3, p. 273 (Peru). TYPE.—Neufchâtel Museum (?).

COMETORNIS SQUAMAECRISTA MINOR (Cherrie).

Lophotriccus squamicristatus minor Cherrie, Proc. U. S. N. M., 1891, **14**, p. 337 (Grecia, Costa Rica). TYPE.—U. S. N. M.

COMETORNIS SQUAMAECRISTA HYPOCHLORUS (Berlepsch and Stolzmann).

Lophotriccus squamicristatus hypochlorus Berlepsch and Stolzmann, Ornith., 1906, **13**, p. 85 (Santa Ana, Central Peru). TYPE.—Branicki collection.

COMETORNIS SQUAMAECRISTA MACCONNELLI (Chubb).

Lophotriccus macconnelli Chubb, Bull. Brit. orn. club, 1919, **39**, p. 90 (Ituribisi Riv., British Guiana). TYPE.—McConnell collection.

Not seen.

COMETORNIS VITIOSUS Bangs and Penard.

A NEW SUBSPECIES OF MYIOZETETES CAYANENSIS (LINNÉ).

In comparing a toptotypical series of the Cayenne Flycatcher with a large series of specimens from Panama, we find that the latter represent a distinct subspecies, worthy of recognition, and propose to name it

MYIOZETETES CAYANENSIS HARTERTI, subsp. nov.

TYPE.—M. C. Z. 107,203. Adult ♀. Panama: Loma del Leon, 25 March, 1900. W. W. Brown, Jr.

SUBSPECIFIC CHARACTERS.—Similar to *Myiozetetes cayanensis cayanensis* (Linné) of Guiana, but slightly smaller; color of upper parts paler and more brownish, not so richly olivaceous.

MEASUREMENTS.—

Myiozetetes cayanensis cayanensis.

	Locality	Sex	Wing	Tail	Tarsus	Exposed culmen
Penard coll. 232	Surinam	♂	91.0	68.5	18.3	13.0
“ “ 233	“	♂	88.5	70.3	19.5	12.5
“ “ 989	“	♂	88.0	67.5	19.5	13.5
“ “ 234	“	(♀)	84.5	66.5	18.0	12.0
“ “ 990	“	(♀)	85.5	68.5	18.5	13.0

Myiozetetes cayanensis erythropterus.

	Locality	Sex	Wing	Tail	Tarsus	Exposed culmen
M. C. Z. 83,362, Lafr. coll. 4,761 (cotype)	Brazil	—	95.0	78.0	20.5	—
M. C. Z. 83,363, Lafr. coll. 4,762 (cotype)	Brazil	—	95.0	78.0	19.0	12.0

Myiozetetes cayanensis hellmayri.

	Locality	Sex	Wing	Tail	Tarsus	Exposed culmen
M. C. Z. 124,688	W. Col.: Jimenez	♂	94.0	—	19.0	12.5
" 124,685	" " "	♂	88.3	69.0	19.5	13.5
" 124,686	" " "	♂	90.0	70.5	17.5	12.5
" 124,683	" " Rio Cauca	♂	91.5	71.0	18.5	13.0
" 124,689	" " Jimenez	♀	85.5	70.0	19.0	12.5
" 124,690	" " "	♀	85.5	70.0	19.0	13.0
" 124,687	" " "	♀	83.0	63.5	18.5	13.0
" 124,681	" " Atuncela	♀	87.0	69.5	18.5	12.5
" 124,684	" " Rio Cauca	♀ (?)	89.5	70.5	—	12.0
Penard coll. 2,005	Ecuador	♀	82.8	68.2	17.8	—

Myiozetetes cayanensis harterti.

	Locality	Sex	Wing	Tail	Tarsus	Exposed culmen
M. C. Z. 107,205	Panama: Loma del Leon	♂	87.0	70.0	18.5	13.0
" 107,204	" " " "	♂	87.8	70.5	18.0	12.5
" 40,837	Near Panama R. R.	♂	87.0	70.0	18.5	13.0
Penard coll. 2,006	Panama: Colon	♂	88.2	69.5	17.5	12.0
M. C. Z. 107,202	" Loma del Leon	♀	83.5	66.5	18.5	12.0
" 107,203	" " " "	♀	85.5	66.0	18.0	12.3
" 107,206	" " " "	♀	79.5	63.0	18.0	12.0
" 107,201	" " " "	(♀)	83.5	66.5	17.0	12.0
" 114,080	Line of Panama R. R.	♀	79.5	65.3	18.0	12.5
" 46,309	" " " "	(♀)	82.2	67.0	17.5	12.0
" 46,308	" " " "	♀ (?)	86.0	69.5	17.0	12.5
" 27,738	Panama, Aspinwall	(♀)	82.0	61.5	17.2	12.0

REMARKS.—In his revision of Spix's types, Hellmayr (Abh. K. Bayer. akad. wiss., 1906, 22, abt. 3, p. 649) gave a review of the forms of the Cayenne Flycatcher, of which he distinguished three:—

M. C. CAYANENSIS (Linné).

Muscicapa cayanensis Linné, Syst. nat., 1766, 1, p. 327 ("Cayana").

Guiana, "Orinoko-Delta," Bogotá, Pará, Matto Grosso, and W. Ecuador.

M. c. RUFIPENNIS Lawrence.

Myiozetetes rufipennis Lawrence, Ann. Lyc. nat. hist., N. Y., 1869, 9, p. 267 (Valencia, Venezuela). Type — American Museum of Natural History.

Venezuela.

M. c. ERYTHROPTERUS (Lafresnaye).

Tyrannula erythroptera Lafresnaye, Rev. zool., 1853, p. 56 (Brazil). Cotypes — M. C. Z.

S. Brazil and Minas Geraës.

The bird from W. Ecuador he thought might represent another form.

Ridgway (Bull. 50, U. S. N. M., 1907, pt. 4, p. 443) did not consider *M. c. rufipennis* a distinct subspecies, and placed the name in the synonymy of *M. c. cayanensis*. Later writers, including Hellmayr, have not followed this view, but have recognized *rufipennis*.

Recently Hartert and Goodson (Nov. zool., 1917, 24, p. 412) have separated the West Ecuadorian form concerning which Hellmayr had expressed a doubt, naming it *M. c. hellmayri*, type-locality Cachabé, N. W. Ecuador. They also called attention to the slightly smaller size and grayer coloration of birds from Panama, but owing to lack of material did not come to a decision in regard to these.

MUSCIFUR, gen. nov.

TYPE.—*Myiarchus semirufus* Sclater and Salvin, Proc. Zool. soc. London, 1878, p. 138, pl. 11.

GENERIC CHARACTERS.— Superficially resembling *Myiarchus* Cabanis. Bill flat as in the subgenus *Onychopterus* Reichenbach, not deep as in true *Myiarchus*; lateral edges decidedly convex, not straight. Wing rounded, not pointed; third (from outside), fourth, and fifth primaries longest; second about equal to sixth; first decidedly short, shorter than ninth; distance from longest primary to distal secondaries not more than length of middle toe without claw. Tail rounded, about equal to length of wing. Upper parts brownish olive, like the head; wings and tail rufous or with rufous edgings; lower parts uniform rufous, entirely lacking the characteristic gray breast and yellow belly of *Myiarchus*.

The only species contained in the new genus is *Muscifur semirufus* (Sclater and Salvin).

REMARKS.—Berlepsch (Proc. Intern. orn. congress, 1907, p. 478) also has called attention to the fact that *M. semirufus* did not belong in *Myiarchus*.

THE FORMS OF TYRANNUS MELANCHOLICUS VIEILLOT.

This wide-ranging species inhabits a vast area from the Lower Rio Grande in Texas, south to Argentina, and throughout its range is locally common. According to Chapman (Bull. Amer. mus. nat. hist., 1917, **36**, p. 478) it is in the main a bird of the tropical zone, but apparently follows the trails and clearings up into the mountains, being found even on the Bogotá Savanna at an altitude of 8,750 feet.

The species varies very little, especially within its South American range. One of the distinguishing characters usually ascribed to birds from northern South America, is the paler color of the back, but we find this very unreliable. In freshly moulted birds from all parts of the range of the species, the upper parts are olive greenish, while in birds in worn, post-breeding plumage, the back is often faded to a dull gray color with practically no olive tone. On the whole, however, birds from southern South America, true *T. m. melancholicus*, are a trifle darker than those from northern South America.

We have been confronted by the usual unreliability in regard to sex determinations in species the males and females of which are similarly colored; for if, as is generally supposed, the male of this species is larger than the female, many of the specimens have been wrongly sexed by collectors. After examining much material, we have decided to ignore the sex marks on the labels altogether, although disposed to regard the smaller specimens of each form as females.

In comparing a very large number of specimens from various parts of Central and South America, we distinguish five forms, of which the characters and geographical distribution are as follows:—

1. TYRANNUS MELANCHOLICUS MELANCHOLICUS Vieillot.

Tyrannus melancholicus Vieillot, Nouv. dict., 1819, **35**, p. 84 (Paraguay).

TYPE.—? Mus. hist. nat. Paris.

SUBSPECIFIC CHARACTERS.—A large form. Chest-band wide and rather dark, suffused more with gray than with yellow; head dark gray; throat gray, not white.

MEASUREMENTS.—Adult (thirty-one specimens) — wing, 112.0–122.5 (116.9); tail, 90.0–108 (96.4).

RANGE.—Argentina, Uruguay, Paraguay, southern Brazil, Bolivia, Peru, western Ecuador, Colombia (excepting Santa Marta region).

SPECIMENS EXAMINED.—Argentina: Tucuman (Tapia), 1; Arenal, 1. Uruguay: Concepcion del Uruguay, 1. Southern Brazil: State of Paraná, 2; State of São Paulo, 6. Bolivia: Yungas, 1. Western Ecuador: San José, 1; San Juan, 1. Peru: Lake Titicaca, 1; Bellavista, 1; Tabacónas, 2; Huancabamba, 3; Chanchamaga, 2. Colombia: Bogotá, 1; Jimenez, 6; Atuncela, 1; San Antonio, 1. Total, 32.

REMARKS.—There has been much uncertainty in regard to the range of true *melancholicus*. We refer to this form all birds from Argentina and Uruguay northward to western Colombia and to South Brazil. Birds from western Colombia and western Ecuador are, as a matter of fact, intermediate in coloration, between true *melancholicus* and the form inhabiting northern South America. Like true *melancholicus* they possess the wide chest-band, which, however, is slightly more yellowish in tone, not so grayish. On the whole, they are very close to true *melancholicus* and hardly distinguishable in parallel series. The difference is certainly too small to warrant further subdivision.

2. TYRANNUS MELANCHOLICUS DESPOTES (Lichtenstein).

Muscicapa despotes Lichtenstein, Verz. doubl., 1823, p. 55 (Bahia, Brazil).

TYPE.—Berlin Museum.

(?) *Muscicapa furcata* Spix, Av. Bras., 1825, 2, p. 15, pl. 19 ("in locis campestribus Brasiliae"). TYPE.—Munich Museum.

(?) *Tyrannus crudelis* Swainson, Quart. Journ. sci., 1826, 20, p. 275 (Brazil) [Reference not verified].

Tyrannus melancholicus satrapa (not *Laphyctes satrapa* Cabanis and Heine) of authors.

SUBSPECIFIC CHARACTERS.—Similar to *Tyrannus melancholicus melancholicus* Vieill., but smaller; chest-band much narrower, yellowish rather than grayish predominating; throat paler gray.

MEASUREMENTS.—Adult (fifteen specimens) — wing, 106.0–117.0 (109.8); tail, 84.0–98.5 (90.4).

RANGE.—Eastern Brazil, Guiana, Venezuela, Trinidad, Tobago, Grenadines.

SPECIMENS EXAMINED.—Eastern Brazil: Bahia, 3. Dutch Guiana: near Parainaribo, 6. French Guiana (trade skin), 1. British Guiana:

Bartica Grove, 2. Venezuela: Margarita Island, 2. Trinidad, 2. Tobago, 1. Union Island (Grenadines), 1. Total, 18.

REMARKS.—This small form is intermediate in coloration between *T. m. melancholicus* of Paraguay and *T. m. chloronotus* of Yucatan. Within its range from Bahia to Merida, Venezuela, we are able to detect some geographical variation, but this is so slight that it would serve no good purpose to recognize more than one form. Birds from Bahia, of which we have unfortunately seen only three specimens, are not quite so distinctive as birds from northern South America, but they are certainly much closer to the latter than to true *melancholicus*. Our examples from Bahia are small like those from Guiana, but the chest-band, although distinctly more yellowish than grayish, is somewhat wider. Since there is already a name available for the Bahia bird, we prefer to adopt it for the entire series rather than to propose a new one for the more distinctive northern birds.

We refer birds from Trinidad, Tobago, Margarita Island, and Union Island, to this form, although they seem to be intermediate between birds from Guiana and Central America. In our examples from the islands mentioned the chest-band is like that of the Guiana birds, but the throat is a trifle more whitish. We cannot, however, justify a further subdivision based upon such a very slight difference, even should it eventually prove to be constant.

In describing *Laphyetes satrapa*, Cabanis and Heine (Mus. Hein., 1859, 2, p. 77), drew the characters entirely from the Mexican bird to which Lichtenstein had given the manuscript name *satrapa* (Berlin Museum coll.). The only constant character mentioned in the diagnosis, is the larger size, which fixes the name upon the form inhabiting northern Mexico, known as *Tyrannus melancholicus couchii* Baird, and not upon the form inhabiting northern South America, which is even smaller than true *melancholicus*. As Ridgway (Bull. 50, U. S. N. M. 1907, pt. 4, p. 703) remarks, Cabanis and Heine even doubtfully referred the South American specimens, from Guiana and Venezuela, to this form. The type of *Laphyetes satrapa* is thus among the specimens in the Berlin Museum, presumably the same recorded by Lichtenstein as *Tyrannus satrapa* in his Nomenclator Avium Musei zoologici Berolinensis, 1854, p. 16, type-locality Mexico. In accordance with this view *T. m. satrapa* (Cabanis and Heine) becomes a synonym of *T. m. couchii* Baird. We may add that previous to Ridgway, Berlepsch (Proc. Intern. orn. congress, 1907, p. 474) had already called attention to the probable identity of the two names.

The names *Muscicapa furcata* Spix and *Tyrannus crudelis* Swainson,

cited in the synonymy above, may apply to this form or perhaps to *T. m. melancholicus*, but as neither Spix nor Swainson gave sufficient information in regard to the type-localities in Brazil, it would be necessary to examine and compare the types in order to determine to which of the two forms these names properly belong. In the plate representing *M. furcata* the chest-band is very wide and dark, more like that of true *melancholicus*, but Hellmayr (Abh. K. Bayer. akad. wiss., 1906, 22, abt. 3, p. 666) says the type does not differ from a much worn specimen from Paraguay, and that the chest and back are shown much too green in the plate.

3. TYRANNUS MELANCHOLICUS CHLORONOTUS Berlepsch.

Tyrannus chloronotus Berlepsch, Proc. Int. orn. congress, 1907, p. 474 (Ternax, Yucatan). TYPE.—Berlepsch collection.

SUBSPECIFIC CHARACTERS.—Similar to *Tyrannus melancholicus melancholicus* Vieillot and *Tyrannus melancholicus despotes* (Lichtenstein), but chest-band decidedly paler and much more yellowish; head slightly paler gray; throat paler and becoming more whitish towards the chin.

MEASUREMENTS.—Adult (134 specimens) — wing, 101.0–120.5 (112.7); tail, 84.5–102.0 (93.6).

RANGE.—Venezuela (Merida), Colombia (Santa Marta region), Panama, Costa Rica, Nicaragua, Honduras, Guatemala, British Honduras, southeastern Mexico.

SPECIMENS EXAMINED.—Venezuela: Merida, 2. Colombia (Santa Marta region): Santa Marta, 3; Santa Marta Mountains, 1; Santa Cruz, 1; Palomina, 5; Macotama, 2; San Sebastian, 3; La Concepcion, 19. Panama: Savanna, near Panama, 2; Line of Panama Railroad, 2; Loma del Leon, 11; Bogaba, 1; Boquete, 3; David, 4; Divala, 3; Pearl Islands, 42. Costa Rica: San José, 1; Juan Viñas, 1; Bolson, 1; Sipurro, 1; Boruca, 1; Cerro Sta. Maria, 1; Buenos Aires, 1; El General, 1; no exact locality, 3. Nicaragua, 1. Honduras: Ceiba, 7. Guatemala: Virginia plantation, 1; trade skins, 3. British Honduras: Belize, 2; Toledo distr., 1; Mexico: Yucatan, 4; Quintana Roo, 5; Tehuantepec (Chihuitan), 1. Total, 140.

REMARKS.—This form is readily distinguishable by its whitish throat and very much yellower chest-band. In birds from Pearl Islands, Bay of Panama, the belly is, as a rule, of a deeper shade of yellow, sometimes even distinctly orange; but this character is not

constant and may be found in some specimens from Panama and elsewhere.

There is a perceptible increase in size of the specimens of this form, northward as it approaches the range of *T. m. couchii*.

4. TYRANNUS MELANCHOLICUS OCCIDENTALIS Hartert and Goodson.

Tyrannus melancholicus occidentalis Hartert and Goodson, Nov. zool., 1917, 24, p. 412 (San Blas, Tepic, W. Mexico). TYPE.—Tring Museum (?).

SUBSPECIFIC CHARACTERS.—Similar to *Tyrannus melancholicus chloronotus* Berlepsch, but smaller; belly paler yellow than in any other form; throat even clearer white than in *T. m. chloronotus*; tail less deeply forked.

MEASUREMENTS.—Adult (seven specimens) — wing, 109.5–116.0 (112.4); tail, 85.0–92.5 (89.5).

RANGE.—Western Mexico.

SPECIMENS EXAMINED.—Mexico: Ocotlan, 1; Manzanillo, 1; San Blas, 3; Tres Marias Islands, 2; Rosario, 1. Total, 8.

REMARKS.—This is a very well-marked form. Its pale under parts and clear white throat distinguish it at once from its nearest allies, *T. m. chloronotus* and *T. m. couchii*.

5. TYRANNUS MELANCHOLICUS COUCHII Baird.

Tyrannus couchii Baird, Rept. Pacific R. R. survey, 1858, 9, p. 175 (Nuevo Leon, Mexico). TYPE.—U. S. N. M.

Laphyctes satrapa Cabanis and Heine, Mus. Hein., 1859, 2, p. 77 (Mexico). TYPE.—Berlin Museum.

SUBSPECIFIC CHARACTERS.—Similar in coloration to *Tyrannus melancholicus chloronotus* Berlepsch, but much larger; larger also than *Tyrannus melancholicus melancholicus* Vieillot; chest-band not so dark, throat whiter, and head paler gray.

MEASUREMENTS.—Adult (twelve specimens) — wing, 116.0–125.5 (122.1); tail, 93.5–104.5 (98.8).

RANGE.—Northeastern Mexico, southern Texas.

SPECIMENS EXAMINED.—Mexico: Tamaulipas, 6; Sierra Madre, 1; Jalapa (trade skin), 1; Orizaba, 1. Texas: Lomita Ranch, 3; Brownsville, 1. Total, 13.

REMARKS.—This is the largest of the forms of *T. melancholicus*.

The largest examples occur in the northern parts of its range, in Texas and Northeast Mexico, and from there southward the form gradually merges into *T. m. chloronotus*.

In freshly moulted birds the back is a little paler olive-green than in true *T. m. melancholicus*, but we cannot detect any differences in the color of wings and tail of the two forms.

THE FORMS OF *PACHYRHAMPHUS POLYCHOPTERUS* (VIEILLOT) AND *PACHYRHAMPHUS MARGINATUS* (LICHTENSTEIN).

Having examined nearly all specimens of *Pachyrhamphus polychopterus* and *Pachyrhamphus marginatus* available in this country, we are able to throw some light on the geographical forms of these two closely related species.

Males of the paler forms of *P. polychopterus* superficially resemble males of *P. marginatus*, but they are really quite distinct and readily identifiable. The male of the *P. marginatus* group differs from that of the *P. polychopterus* group in having a broad white frontal band, although some specimens of the *polychopterus* group, especially in the paler forms, possess distinct white lores.

The females of the two species are distinguishable at a glance. In the *P. polychopterus* group the head of the female is of about the same color as the back, or a little darker, while in the *P. marginatus* group the head is always reddish brown, contrasting sharply with the olive-green of the back.

I. THE *PACHYRHAMPHUS POLYCHOPTERUS* GROUP.

There appears to be considerable confusion among ornithologists in regard to the forms of *Pachyrhamphus polychopterus*, partly, no doubt, owing to lack of material for comparison.

The series of specimens at our disposal, arranged in accordance with the geographical distribution of the species, not only shows very plainly the existence of more forms than have hitherto been recognized, but exhibits in a marked degree the great amount of individual variation in the plumage of the males of the darker forms. Berlepsch (Nov. zool., 1908, 15, p. 140) and Cherrie (Mus. Brooklyn inst. Sci. bull., 1916, 2, p. 252), both have called attention to this variation.

The females also show much individual variation. The color of the

upper parts varies from brownish olive to grayish green, with all intermediate shades, but that of the under parts is more constant and practically the same in all the forms. In general, females of the paler forms are more yellowish below than those of the darker forms, and young females of all forms have much brighter yellow under parts than do adults.

The species is distributed over the entire forested area of Central and South America from Honduras to northern Argentina, and is represented by eight forms of which two, *P. p. tristis* and *P. p. costaricensis*, are respectively so close to *P. p. variegatus* and *P. p. similis*, that further investigation with larger series for comparison may prove them to be identical with the latter.

The largest form is found in the southernmost portion of the range of the species, while the smallest members inhabit Costa Rica, Nicaragua, and Honduras.

The darkest form is *P. p. variegatus* of the Upper Amazon. Southward and northward from there the species becomes more variable tending toward paler forms, attaining the palest coloration in *P. p. costaricensis* of Costa Rica.

The form inhabiting Guiana, Venezuela, Trinidad, and Tobago, presents the greatest individual variation, from very dark birds, almost the equal of *P. p. variegatus*, to pale birds closely resembling those inhabiting the Santa Marta region in Colombia. But we cannot find any constant characters distinguishing birds from any portion of the range of this form. On the contrary, specimens with mottled under parts, with or without mottled rumps and under tail-coverts, are found over the entire range. Nor can we detect any constant difference in the degree of freckling or paleness of the under parts.

In all the forms the paler specimens show more or less pronounced traces of whitish lores. These are particularly noticeable in young birds, but are never so distinct as in *P. marginatus*, nor do they ever meet at the base of the forehead to form a distinct band as in that species.

The forms are:—

1. *PACHYRHAMPHUS POLYCHOPTERUS POLYCHOPTERUS* (Vieillot).

Platyrynchos polychopterus Vieillot, Nouv. dict., 1818, 27, p. 10 ("Nouvelle-Hollande," error — South Brazil substituted by Hellmayr, Abh. K. Bayer. akad. wiss., 1906, 22, Abt. 3, p. 666). TYPE.—Paris Museum — *vide* Vieillot, (*loc. cit.*).

Pachyrhamphus notius Brewster and Bangs, Proc. New Eng. zool. club, 1901, 2, p. 53 (Concepcion del Uruguay). TYPE.—M. C. Z.

Clemacocercus cyanocephalus Bertoni, Av. nuev. Paraguay, 1901, p. 327. [Reference not verified].

SUBSPECIFIC CHARACTERS.—Large, wing of male not less than 80 millimeters; dark, under parts, in adult, varying from deep mouse-gray (of Ridgway) to blackish, slightly freckled with gray or whitish.

MEASUREMENTS.—Male (nineteen specimens) wing, 80.0–86.0 (82.0); tail, 61.0–65.5 (62.3); tarsus, 18.0–19.8 (19.1); exposed culmen, 12.0–13.5 (12.8).

Female (five specimens) — wing, 78.0–81.0 (79.6); tail, 57.0–61.0 (59.0); tarsus, 18.0–20.5 (19.1); exposed culmen, 12.5–14.5 (13.1).

RANGE.—Northern Argentina, Uruguay, Paraguay, Southern Bolivia, and Southern Brazil.

SPECIMENS EXAMINED.—Northern Argentina: Macho Muerta, Oran, 2 ♂♂; Embarcacion, Oran, 3 ♂♂, 3 ♀♀; Miraflores, Oran, 5 ♂♂, 1 ♀; La Plata, 1 ♂. Uruguay: Concepcion del Uruguay, 2 ♂♂. Southern Brazil: Rio Janeiro (?), 1 very young bird; Ubatis, S. Paolo, 1 ♂; Rio Grande do Sul, 1 ♂; Chapada, Matto Grosso, 2 ♂♂, 1 ♀; Southern Bolivia: Yacuiba, 2 ♂♂; Rio Yapacani, Sta. Cruz, 1 ♂. Total, 26.

REMARKS.—This dark form, closely resembling *P. p. variegatus* in coloration, but perhaps never quite so intensely black below, and with the rump apparently never so black as the back, can always be distinguished from *P. p. variegatus* by its much larger size. Both young and adult are sometimes uniformly colored below and sometimes very much freckled with grayish.

A specimen (Carnegie Museum) from Macho Muerto, Dept. Oran. N. Argentina, has distinct whitish lores, while another (Carnegie Museum) from the same locality, collected in the same year and month, has practically no trace of any. In most specimens, however, a very faint trace of white may be detected in the loreal region.

When Brewster and the senior author (*loc. cit.*) separated this large southern form as *Pachyrhamphus notius*, they compared their type with specimens of the pale race inhabiting eastern Brazil, which they regarded as true *polychopterus*, but they did not fix the type-locality of the latter. A few years later Hellmayr (*loc. cit.*), evidently considering the southern Brazilian bird different from true *notius*, applied to it the name *polychopterus* of Spix, designating South Brazil as type-locality. Notwithstanding this formal designation of the

type-locality, however, it is not yet certain that the name *polychopterus* properly belongs to the southern bird, because, as Hellmayr and Seilern (Archiv naturg., 1912, abt. A, heft 5, p. 89, footnote) have observed, the type, which is in the Paris Museum, may upon investigation, prove to belong to one of the northern South American forms, in which case *P. notius* Brewster and Bangs becomes available for this form.

If any difference exists between true *notius* and the bird from southern Brazil, it is so slight that we cannot differentiate it from individual variation in the series examined, and hence we are obliged to unite both under one name, provisionally using *Pachyrhamphus polychopterus* (Vieillot).

2. PACHYRHAMPHUS POLYCHOPTERUS SPLENDENS (Wied).

Muscipeta splendens Wied, Beitr. naturg. Bras., 1831, 3, pt. 2, p. 906 (Brazil — we designate Bahia). TYPE.—A. M. N. H.

Pachyrhynchus spirii Swainson, Animals in menag., 1838, p. 289 ("Brazil?" — we designate Bahia). TYPE.—Paris Museum — *vide* Swainson (*loc. cit.*).

SUBSPECIFIC CHARACTERS.—Similar to *Pachyrhamphus polychopterus polychopterus* (Vieillot) of South Brazil, but smaller; under parts much paler, never blackish, usually about light neutral gray (of Ridgway) to neutral gray.

MEASUREMENTS.—TYPE.—Adult ♂ — wing, 77.5; tail, 59.0; tarsus, 18.0; exposed culmen, 13.0.

Male (eight specimens including the type) — wing, 75.5–77.5 (76.7); tail, 56.3–59.0 (56.9); tarsus, 17.5–19.0 (18.4); exposed culmen, 11.5–13.1 (12.5).

RANGE.—Eastern Brazil.

SPECIMENS EXAMINED.—Eastern Brazil: Bahia (type and trade skins), 5 ♂♂; Ceará (trade skins), 3 ♂♂; "Bresil" (Lafr. coll. 4,504), 1 ♂. Total, 9.

REMARKS.—In this subspecies the under parts are never so conspicuously freckled as in true *polychopterus* of South Brazil, because the ground color is so much paler. Owing to the presence of small whitish lores in many specimens, we suspect that it has often been confounded with *Pachyrhamphus marginatus marginatus* (Lichtenstein), which inhabits the same general region, but the under parts of *P. p. splendens* are never so pale, and the white frontal band is never present, as in that species.

Having examined the type of Wied's *Muscipeta splendens*, we posi-

tively identify it as belonging to the eastern Brazilian form, and hence adopt the name *splendens*. On account of fading the type is somewhat browner than fresh specimens.

We have not seen any authentic examples of the female of this form, but a specimen (A. M. N. H. 43,674) marked "Brazil?," the dimensions of which are too small for *polychopterus* and rather large for *tristis*, may possibly belong to this form. The measurements are:—wing, 75.0; tail, 55.5; tarsus, 18.0; exposed culmen, 13.0.

3. PACHYRHAMPHUS POLYCHOPTERUS VARIEGATUS (Spix).

Pachyrhynchus variegatus Spix, Av. Bras., 1825, 2, p. 31, pl. 43, fig. 3 (♂ juv.) (No type-locality stated — we designate Upper Amazon, near Fonteboa). TYPE lost — *vide* Hellmayr, Abh. K. Bayer. akad. wiss., 1906, 22, abt. 3, p. 666.

Pachyrhynchus niger Spix, Av. Bras., 1825, 2, p. 33, pl. 45, fig. 1 (♂ ad.) (No type-locality stated — "Amazonas prope Fonteboa," designated by Berlepsch and Hartert, Nov. zool., 1902, 9, p. 56). TYPE lost — *vide* Hellmayr, *loc. cit.*, p. 669.

Pachyrhamphus nigriventris Selater, Proc. Zool. soc. London, 1857, p. 76 (new name for *Pachyrhynchus niger* Spix).

SUBSPECIFIC CHARACTERS.—Similar to *Pachyrhamphus polychopterus polychopterus* (Vieillot) of South Brazil, but smaller, and even blacker, the adult male having practically unmottled, black rump, under parts and under tail-coverts.

MEASUREMENTS.—Male (two specimens) — wing, 73.0–75.5; tail, 58.5–56.5; tarsus, 18.0–18.5; exposed culmen, 13.0–12.8.

RANGE.—Northern Bolivia, Upper Amazon, northeastern Peru (Hellmayr), eastern Ecuador (Hellmayr).

SPECIMENS EXAMINED.—Northern Bolivia: Lower Beni, 1 ♂ (not typical). Western Brazil: Porto Velho, Rio Madeira, 1 im. ♂. Total, 2.

REMARKS.—It is by no means certain that a large series of specimens from the Upper Amazon would not prove the identity of this small dark form with the next, the darkest specimens of which quite match the only adult male of *P. p. variegatus* (= *niger*) we have seen. For the present, however, we keep the two forms separate, more on the authority of Hellmayr and other investigators, than on the evidence presented by our own specimens. *P. p. variegatus* is the only form of which we have not been able to examine sufficient material.

Hellmayr (*loc. cit.*, p. 666), in his "Revision der Spix'schen typen," doubtfully referred *Pachyrhynchus variegatus* Spix to *Pachyrhynchus polychopterus* (Vieillot), remarking that it might equally well represent the young of *P. niger*. After careful examination of Spix's plate, which certainly represents a young male of the *polychopterus* group, we have decided that it does not represent true *polychopterus* of South Brazil. The wing measurement of approximately 75 mm., taken from the plate, is much too small and more in agreement with that of the males of either the Upper Amazonian or eastern Brazilian forms.

Spix failed to state where he obtained the specimen, but it is reasonable to assume that he procured the young bird at the same place as the adult male figured by him in plate 45 under the name *P. niger*, the type-locality of which has been designated by Berlepsch and Hartert (*loc. cit.*) as "Amazonas prope Fonteboa."

We would have preferred to place the name *variegatus* in the synonymy of some one of the forms of *polychopterus*, rather than use it to replace the time-honored name of *niger*, but in our judgment the evidence will not permit of such a course.

4. PACHYRHAMPHUS POLYCHOPTERUS TRISTIS (Kaup).

?*Lanius atricapillus* Merrem, Av. Icon. deser., 1784, p. 26 (Surinam). Cf.

Berlepsch, Nov. zool., 1908, 15, p. 140.

Psaris marginatus tristis Kaup, Proc. Zool. soc. London, 1851, p. 48 (No type-locality stated — we designate Cayenne). TYPE.—Originally in collection of Lord Derby.

Pachyrhamphus niger tobagensis Cory, Field mus. nat. hist. Publ. 190, orn. ser., 1916, 1, no. 10, p. 343 (Tobago Island, West Indies). TYPE.—Field Museum of Natural History.

Pachyrhamphus macconnelli Chubb, Bull. Brit. orn. club, 1920, 40, p. 73 (Bonasika River, British Guiana). TYPE.—McCormell collection.

Pachyrhamphus albiloris Chubb, Bull. Brit. orn. club, 1920, 40, p. 73 (San Estaban, Venezuela). TYPE.—British Museum, Selater collection.

SUBSPECIFIC CHARACTERS.—Similar to *Pachyrhamphus polychopterus variegatus* (Spix) of Upper Amazon (if at all distinguishable), and of about the same size, but under parts slightly paler, not so intensely black (See remarks below on individual variation in this form).

MEASUREMENTS.—Male (fifty-five specimens) — wing, 71.0–77.5 (74.8); tail, 52.5–60.5 (55.6); tarsus, 17.2–19.0 (18.3); exposed culmen, 12.0–14.0 (12.8).

Female (thirty-one specimens) — wing, 68.0–73.5 (71.1); tail,

50.0–56.0 (52.7); tarsus, 17.5–19.0 (18.3); exposed culmen, 12.0–13.0 (12.4).

RANGE.—Guiana (French, Dutch, British). Venezuela, Trinidad, Tobago.

SPECIMENS EXAMINED.—French Guiana: Cayenne (including trade skins), 7 ♂♂, 4 ♀♀; Mana, 8 ♂♂, 5 ♀♀. Dutch Guiana: Vicinity of Paramaribo, 1 ♂. British Guiana: Mount Roraima, 1 ♂; "Demerara," 1 ♂, 1 ♀. Venezuela: Eldorado, Rio Cuyuni, 1 ♂; Rio Yuruan, 1 ♀; San Antonio, Bermudez, 1 ♂; Cumanacoa, Bermudez, 1 ♂, 1 ♀; El Pilar, 1 ♂; Las Quigas, 1 ♂, 2 ♀♀; San Estaban, 1 ♂, 1 ♀; Aroa, Bolivar R. R., 1 ♀; Lagunita de Aroa, 2 ♂♂, 1 ♀; Sierra de Carabobo, 13 ♂♂, 6 ♀♀; El Trompillo, Carabobo, 8 ♂♂, 2 ♀♀; Merida, 2 ♂♂; "Venezuela," 1 ♂, 2 ♀♀. Trinidad: Provincetown, 1 ♂, 3 ♀♀; Heights of Aripo, 1 ♂, 1 ♀; Heights of Orepouche, 1 ♂, 1 ♀; Sta. Emilia, 1 ♀; "Trinidad," 2 ♂♂. Tobago: 2 ♂♂, 1 ♀. Total, 91.

REMARKS.—This is the most variable of all the forms of *P. polychopterus*, and a study of its various plumages is extremely interesting, especially in relation to allied forms.

There is good reason to believe that the species, and more particularly this subspecies, is dichromatic, presenting a black-bellied phase and a gray-bellied phase, both with or without mottled rump, under parts, or under tail-coverts. In the dark phase some specimens are very much like *P. p. variegatus*, the rump being quite black like the back. In the gray phase the bird closely resembles the Santa Marta form, from which it differs in being smaller, slightly darker, and, as a rule, much more mottled.

Two immature birds from Trinidad (A. M. N. H. 59,252, 59,253) are of interest in this connection, in that they are changing directly from the olivaceous plumage of the young bird into the very black of the adult, although several fully adult birds, from the same place, that have passed wholly through the change, have gray, not black, under parts. On the other hand an immature bird from Aroa, Bolivar R. R., Venezuela, and another from Sierra de Carabobo, Venezuela (Carnegie mus., 36,344 and 47,768), are apparently changing directly from the olivaceous into the gray, not black, phase, while from the same general region we have black as well as gray-bellied adults.

Birds from Guiana are, as a rule, larger than birds from Venezuela, but the difference is very slight and not by any means constant.

A few words in regard to the nomenclature and synonymy of this interesting form are necessary here.

The name *Pachyrhamphus atricapillus*, based on *Lanius atricapillus* Merrem, was formerly used by authors for the species now known as *Pachyrhamphus marginatus* (Licht.), but Merrem's description being considered unidentifiable and unsatisfactory, the name *atricapillus* was discarded by Berlepsch (*loc. cit.*). We have not been able to consult the original reference, and hence rely entirely upon the judgment of Berlepsch who abandoned the name and suggested that it might possibly apply to some form of the *polychopterus* group. Since the type-locality of Merrem's *L. atricapillus* is Surinam, it follows that if the name should eventually be considered valid for this species it would not only be applicable to this form but, being the earliest name, would have to be used as the specific term in the names of all other forms.

The name *P. m. tristis* Kaup unquestionably belongs in the *polychopterus* group. The description, "all under parts dark grey, mixed with black" can apply to only two forms — *P. p. polychopterus* and this, all others, except *P. p. variegatus*, which is uniform black, having pale under parts without any admixture of black, although some specimens may have slightly freckled under parts. But the wing measurement of 75 mm., given by Kaup for an adult male, does not agree with that of the southern Brazilian bird, in which the wing measurement of the male is at least 80 mm. Thus by elimination the name is found to apply to the form inhabiting Guiana, Venezuela, Trinidad, and Tobago, which we consider all one, and since no type-locality was mentioned by Kaup, we designate Cayenne and adopt the name *tristis* for this form.

In our opinion, the names *P. n. tobagensis* Cory, *P. macconnelli* Chubb, and *P. albiloris* Chubb, are all applicable to this form. We have examined the type of *P. n. tobagensis* which agrees well with many examples from Venezuela and is certainly not separable. So far as we can judge without actual comparison with the types, the characters claimed by Chubb for *P. macconnelli* are simply those of the form under discussion, while *P. albiloris* represents the specimens with small white lores, of which we have many in the series before us from various parts of Venezuela including San Estaban, the type-locality.

Thus we see that not only has this form suffered much from nomenclatural changes, but even now matters in this regard are not finally settled. For, even assuming that ?*L. atricapillus* Merrem be considered permanently disposed of as unidentifiable, still, as Hellmayr and Seilern have remarked, the type of *P. polychopterus* may, upon

examination, be found to apply to a northern South American form, perhaps the one under discussion here.

5. PACHYRHAMPHUS POLYCHOPTERUS CINEREIVENTRIS Sclater.

Pachyrhamphus cinereiventris Sclater, Cat. Amer. birds, 1862, p. 242 ("S. Martha," ex Verreaux). TYPE.—British Museum, Sclater collection.

SUBSPECIFIC CHARACTERS.—Similar to *Pachyrhamphus polychopterus tristis* (Kaup) of Venezuela, but smaller; under parts paler, more uniform in color, sometimes obscurely freckled with whitish.

MEASUREMENTS.—Male (twenty specimens) — wing, 70.0–75.5 (72.6); tail, 51.0–57.0 (53.3); tarsus, 17.0–19.0 (18.2); exposed culmen, 11.5–13.0 (12.4).

Female (fourteen specimens) — wing, 67.5–69.5 (68.1); tail, 48.0–53.0 (50.5); tarsus, 17.0–18.5 (17.8); exposed culmen, 11.5–13.0 (12.4).

RANGE.—Santa Marta district of Colombia.

SPECIMENS EXAMINED.—Colombia (Santa Marta region): "Sta. Martha," 1 ♂; Ciénaga, 1 ♂; Bonda, 15 ♂♂, 10 ♀♀; Mamotoco, 1 ♀; Fundacion, 3 ♂♂, 1 ♀; Calamar, 1 ♀; Gamara, 1 ♂; Tucurínca, 1 ♀; Aguachioa, 1 ♀; Jaraquiel, 1 ♀. Total, 37.

REMARKS.—This form is quite distinct from the form inhabiting Venezuela, Guiana, and Trinidad. Not only is it slightly smaller, but the under parts are paler and seldom show much mottling. The darker specimens, however, as might be expected, approach closely in coloration to *P. p. tristis*, but in such cases the size readily distinguishes them. The paler specimens approach the next form, *P. p. costaricensis* Chubb, and are hardly distinguishable from the darker specimens of that form except in parallel series.

Hellmayr (Nov. zool., 1906, 13, p. 27), having examined the type of *P. cinereiventris* Sclater in the British Museum, applied the name to the Trinidad bird, explaining that the type "is dark cinereous, more or less freckled with dull blackish, especially on the throat and foreneck." Later he and Graf von Seilern (Archiv naturg., 1912, abt. A, heft 5, p. 89) used the name for the Venezuelan bird, with the remark that probably the type came from Venezuela or Trinidad.

We were strongly inclined to follow Hellmayr in this disposition of the name *cinereiventris*, and would have done so here, had we not been influenced by other considerations. Mr. Todd, on his recent visit

to the M. C. Z., informed us that in his forthcoming paper on the birds of the Santa Marta region, he intended to use the name *cincereiventris* for the Santa Marta bird. He examined our series from Santa Marta, and pronounced it much more uniform than the series in the Carnegie Museum, the latter series being much larger and containing dark specimens very close to, and almost indistinguishable from, some Venezuelan examples. It was his opinion that Selater's type really came from Santa Marta and represents an extreme variant close to the Venezuelan form. In view of this it would be well to compare the type of *P. cincereiventris* Selater with a large series from Santa Marta before coming to a final decision in the matter. For the present, rather than rename the Santa Marta bird on the evidence at hand, we retain for it the name *cincereiventris*.

6. *PACHYRHAMPHUS POLYCHOPTERUS COSTARICENSIS* Chubb.

Pachyrhamphus costaricensis Chubb, Bull. Brit. orn. club, 1920, 40, p. 74 (Bebedero, Costa Rica). TYPE.—British Museum, Salvin-Godman collection.

SUBSPECIFIC CHARACTERS.—Very similar to *Pachyrhamphus polychopterus cincereiventris* Selater of Santa Marta, but slightly smaller; under parts paler gray with a more pearly tone—deep gull-gray (of Ridgway) rather than light neutral gray.

MEASUREMENTS.—Male (twenty specimens)—wing, 68.0–74.5 (71.0); tail, 50.5–57.3 (54.2); tarsus, 17.5–19.0 (18.5); exposed culmen, 12.0–13.0 (13.0).

Female (ten specimens)—wing, 65.0–67.0 (66.3); tail, 50.0–52.5 (51.0); tarsus, 17.5–19.0 (18.4); exposed culmen, 11.5–13.5 (12.3).

RANGE.—Panama, Costa Rica, western Nicaragua (Ridgway, *cincereiventris*).

SPECIMENS EXAMINED.—Panama: Line of Panama Railroad, 1 ♂, 1 ♀; Isthmus, Atlantic side, 1 ♂; Divala, 2 ♂♂, 1 ♀; Boquete, 1 ♂; Bogaba, 1 ♂; Chiriqui, 1 ♂; Focoume, 1 ♀. Costa Rica: El General, 6 ♂♂, 5 ♀♀; Bolson, 4 ♂♂; Boruca, 2 ♂♂, 3 ♀♀; Pozo Azul, 1 ♂, 1 ♀; Senorio, 1 ♂; Barranca Puntarenas, 1 ♂. Total, 34.

REMARKS.—*P. p. costaricensis* and *P. p. cincereiventris* are very close subspecies, and not always distinguishable separately. In series, however, the difference is perceptible, especially in the more pearly gray appearance of the Costa Rican bird.

7. *PACHYRHAMPHUS POLYCHOPTERUS SIMILIS* Cherrie.

Pachyrhamphus similis Cherrie, Proc. U. S. N. M., 1891, **14**, p. 343 (Greytown, Nicaragua). TYPES.—U. S. N. M. (♂ and ♀).

SUBSPECIFIC CHARACTERS.—Very similar to *Pachyrhamphus polychopterus costaricensis* Chubb of Costa Rica, and of about the same size, perhaps slightly smaller; under parts averaging a little darker and less pearly gray. Very similar in the color of the under parts to *P. p. cinereiventris*, but smaller.

MEASUREMENTS.—Male (five specimens) — wing, 71.0–71.4 (70.1); tail, 52.1–57.0 (55.2); tarsus, 17.5–19.2 (18.3); exposed culmen, 12.5–12.8 (12.6).

Female (three specimens) — wing, 69.5–70.5 (70.0); tail 52.5–55.0 (53.8); tarsus, 18.5–18.8 (18.7); exposed culmen, 11.5–13.5 (12.3).

RANGE.—Costa Rica (Atlantic side), Nicaragua, Honduras.

SPECIMENS EXAMINED.—Costa Rica: Guayabo, 1 ♀; Jimenez, 2 ♀ ♀. Nicaragua: Greytown, 2 ♂ ♂, 1 ♀; Sucuya, 1 ♂; Escondido riv., 1 ♂; Juan Venas, 1 ♂. Honduras: Sta. Ana, 1 ♂. Total, 10.

REMARKS.—This form is exceedingly close to *P. p. costaricensis* and only distinguishable in series. We have a strong feeling that the two will eventually prove to be inseparable, when a larger series of *P. p. similis* shall become available for comparison.

8. *PACHYRHAMPHUS POLYCHOPTERUS DORSALIS* Slater.

Pachyrhamphus dorsalis Slater, Cat. Amer. birds, 1862, p. 243 ("Bogotá?").

TYPE.—British Museum, Slater collection, examined by Hellmayr who pronounced it an undoubted Bogotá skin.—Cf. Proc. Zool. soc. London, 1911, p. 1143.

Pachyrhamphus chapmani Chubb, Bull. Brit. orn. club, 1920, **40**, p. 74 (Sta. Elena, Antioquia, Colombia). TYPE.—British Museum, Salvin-Godman collection.

SUBSPECIFIC CHARACTERS.—Similar to *Pachyrhamphus polychopterus tristis* (Kaup), but larger; under parts much paler gray; hind neck sometimes showing a gray collar separating the black of the pileum from that of the back.

MEASUREMENTS.—Male (ten specimens) — wing, 74.0–80.5 (77.9); tail, 55.5–60.0 (57.5); tarsus, 18.0–20.0 (19.0); exposed culmen, 12.0–14.5 (12.9).

Female (two specimens) — wing 71.5–72.5; tail, 53.0 — —; tarsus, 20–19.0; exposed culmen, 12.0–12.5.

RANGE.—Western Colombia, N. W. Ecuador (Hellmayr).

SPECIMENS EXAMINED.—Western Colombia: San Antonio, 4 ♂♂; Ricaurte, 2 ♂♂, 1 ♀; Aguadita, above Fusugasugá, 2 ♂♂, 1 ♀; Rio Cali, 1 ♂, Rio Barratoro, 1 ♂. Total, 12.

REMARKS.—This is a very well-marked form, distinguishable by its large size and very pale gray under parts, of about the same color as in *P. m. marginatus* (Lichtenstein), of which Hellmayr (*loc. cit.*) thought it might be the western representative. We have before us specimens with and without the gray nuchal band, and hence the character which was supposed to separate the bird as a species proves to be not constant.

The female possesses a dark olive, not rufous, pileum which places the bird in the *polychopterus* instead of the *marginatus* group.

The range of *P. p. dorsalis* is given by Ridgway as extending north to the line of the Panama Railroad, but we believe that it does not reach so far north, as all specimens we have seen from the line of the Panama Railroad are certainly *P. p. costaricensis*.

II. THE FORMS OF *PACHYRHAMPHUS MARGINATUS* (Lichtenstein).

Some time ago Berlepsch (Nov. zool., 1902, 9, p. 56) expressed the opinion that Merrem's *Lanius atricapillus* was not characterized with sufficient clearness to be accepted for *Pachyrhamphus atricapillus* of authors, and that it might equally well apply to *Pachyrhamphus niger* (Spix), suggesting that the name *Todus marginatus* Lichtenstein, of Bahia, might be used for the species. He said furthermore, that in case Lichtenstein's name were accepted, a northern form might be separable as a subspecies.

Later Berlepsch (Nov. zool., 1908, 15, p. 141), having examined the type of *Todus marginatus* in the Berlin Museum, adopted the name *marginatus*, placing *P. atricapillus* of authors (not of Merrem) in its synonymy. Hellmayr (Nov. zool., 1910, 17, p. 314), accepting the name *marginatus* for the species, called attention to the fact that two males and three females from eastern Brazil (Rio de Janeiro and Bahia) had longer wings and tails than specimens from Maruins, Rio Negro, Venezuela, and Guiana, adding that in case additional material should corroborate this difference, the northern bird would have to be provided with a new name, since *T. marginatus* and all its synonyms are strictly applicable to the southeast Brazilian bird.

Brabourne and Chubb (Birds of South America, 1912, 1, p. 316) list both *P. atricapillus* (Merrem) and *P. marginatus* (Lichtenstein). For the former they give the distribution Ecuador, East Peru, and Guiana; and for the latter East Brazil. From the systematic position of these names in their list, we judge that these authors considered *atricapillus* a form of the *marginatus* and not of the *polychopterus* group, but, so far as we know, they have not given any reasons for rejecting the names in the sense used by Berlepsch.

We have examined a fairly large series of *P. marginatus* from various parts of its range, and find much individual variation. Dark specimens with or without mottled backs may be found from the same localities as paler specimens with uniform gray backs. Skins from Bahia, Para, Venezuela, and the Peruvian Amazons, can be readily matched, in color, in a large series from French Guiana.

We believe that a northern form of *Pachyrhamphus marginatus* is separable only by its smaller size, but the difference is sufficient to warrant recognition. The two forms are:—

1. PACHYRHAMPHUS MARGINATUS MARGINATUS (Lichtenstein).

Todus marginatus Lichtenstein, Verz. doubl., 1823, p. 51 (Bahia). TYPE.—Berlin Museum, adult ♀.

Pachyrhynchus albifrons Swainson, Anim. in menag., 1838, p. 289 ("Brazil"—we designate Bahia). TYPE.—Originally in Swainson collection, ♂.

Pachyrhynchus swainsonii Jardine and Selby, Illust. orn., 1829, 2, add. [4], no. 6 ("Brasilia"—we designate Bahia). TYPE.—Originally "in Museo Dom. Swainson, et Gulielmi Jardine, Baronetti,"—♀.

Pachyrhamphus atricapillus (not of Merrem) of authors.

SUBSPECIFIC CHARACTERS.—Adult ♂ similar to *Pachyrhamphus polychopterus tristis* (Kaup), and of about the same size, but hind neck gray; forehead with a narrow but distinct whitish band; interscapular region partly black; under parts pale gray. Adult ♀ head reddish brown, contrasting with back.

MEASUREMENTS.—Male (eight specimens)—wing, 70.0–76.0 (73.2); tail, 51.0–56.0 (53.6); tarsus 17.0–18.5 (17.8); exposed culmen 12.0–13.0 (12.4).

Female (one specimen)—wing, 70.5; tail, 52.0; tarsus, 19.5; exposed culmen, 12.0.

RANGE.—Eastern and southeastern Brazil.

SPECIMENS EXAMINED.—Brazil: Bahia (including trade skins),

9 ♂♂; San Sebastião, 1 ♀; Diamantina, 1 ♀; "Bresil," 1 ♂. Total, 12.

REMARKS.—We have not seen any adult males from southeastern Brazil. Measurements of the adult female from San Sebastião seem to indicate that birds from the southern parts of the range may be somewhat larger.

2. *PACHYRHAMPHUS MARGINATUS NANUS*, subsp. nov.

TYPE.—M. C. Z. 82,600 (Penard coll. 2,008), adult ♂. East Peru: Neberos, Peruvian Amazons. Bartlett.

SUBSPECIFIC CHARACTERS.—Similar to *Pachyrhampus marginatus marginatus* (Lichtenstein) of Bahia, but decidedly smaller; coloration about the same, but white frontal band narrower and less conspicuous.

MEASUREMENTS.—TYPE.—Adult ♂ — wing, 67.3; tail, 46.0; tarsus, 17.5; exposed culmen, 12.3.

Male (fourteen specimens) — wing, 64.2–70.5 (67.8); tail, 45.6–51.3 (48.6); tarsus, 17.0–18.3 (17.7); exposed culmen, 11.5–12.5 (12.1).

Female (twenty-two specimens) — wing, 62.5–66.0 (64.8); tail, 43.0–49.0 (46.8); tarsus, 16.5–19.0 (17.6); exposed culmen, 11.8–13.3 (12.2).

RANGE.—Northeastern Brazil, Guiana, Venezuela, Upper Amazon, eastern Peru.

SPECIMENS EXAMINED.—Peru: Neberos, 1 ♂ (TYPE). Venezuela: Sierra de Carabobo, 1 ♂; Upper Caura River, 2 ♀♀. Dutch Guiana: "Surinam," 1 ♂. French Guiana: Pied Saut (Oyapock), 8 ♂♂, 7 ♀♀; Tamanoir (Mana River), 10 ♂♂, 13 ♀♀. Northeastern Brazil: Demonti (Oyapock), 1 ♀; North Para, 2 ♂♂, 2 ♀♀. Total, 48.

REMARKS.—We cannot detect any difference between the type from Peru and several examples in the large series from Guiana.

ALLENIA FUSCA (P. L. S. Müller).

Muscicapa fusca P. L. S. Müller, *Natursyst. suppl.*, 1776, p. 170 (Martinique).

Muscicapa fusca Boddaert, *Tabl. Pl. enl.*, 1783, p. 33 (not of p. 34), pl. 568, fig. 2.

Turdus montanus (not of Voigt) Lafresnaye, Rev. zool., 1844, p. 167 (Guadeloupe). TYPE.—M. C. Z.

Turdus apicalis Hartlaub, Syst. orn. West-Africas, 1857, p. 76.

The name *Muscicapa fusca* used by Müller, and later by Boddaert, applies to the Scaly-breasted Thrasher generally known as *Allenia apicalis* (Hartlaub). Both names are based upon Daubenton's Gobe-Mouche brun de la Martinique, Pl. enl. 568, fig. 2. Müller's description is very brief, but his allusion to the "Braune Fliegenfänger" "aus Martinique" of Buffon leaves no doubt as to its identity.

The figure in Daubenton's plate is rather poor, but shows distinctly the scaly breast and white spots on the rectrices. The rectal bristles are too prominent, and the back is shown much redder than it should be, but in this latter respect agrees very well with Lafresnaye's type of *Turdus montanus*, M. C. Z. 76,370, Laf. coll. 3,621, which in its present faded condition from long exposure to light, is much redder above than fresh specimens with which we have made comparison. It is likely, too, that the pigment used in Daubenton's plate may have undergone some change during its long existence, making it much redder than it originally had been.

A NEW SUBSPECIES OF *SICALIS FLAVEOLA* (LINNÉ).

When the birds collected during the Harvard Peruvian expedition of 1916 were reported upon by the senior author and Noble (Auk, 1918, 35, p. 462), specimens of *Sicalis flaveola* from South America with which to compare the Peruvian examples were not available. The M. C. Z. has since acquired a specimen collected in Brazil by the Wilkes United States Exploring Expedition. This specimen agrees with a series from Jamaica, but both differ from the Peruvian bird, for which we propose

SICALIS FLAVEOLA VALIDA, subsp. nov.

TYPE.—M. C. Z. 79,766. Adult ♂. Peru: Sullana, 29 July, 1916. G. K. Noble.

SUBSPECIFIC CHARACTERS.—Similar to *Sicalis flaveola flaveola* (Linné) but larger; upper parts more yellowish green, less olive-green.

MEASUREMENTS.—*S. f. valida*. TYPE.—adult ♂ — wing, 82.2; tail, 58.5; tarsus, 21.5; exposed culmen, 11.3.

Male (two specimens) — wing, 78.5, 83.0; tail, 55, 58; tarsus, 20, 20.5; exposed culmen, 11.3.

S. f. flaveola. Both sexes, ten specimens — wing, 71–74.5 (72.6); tail, 50.5–55.0 (52.6); tarsus, 18.0–19.0 (18.6); exposed culmen, 10.5–11.0 (10.8).

SPECIMENS EXAMINED.—*S. f. valida* — Peru: Sullana, 1 ♂; Huanabamba, 1 ♂; Bellavista, 1 ♂. Total, 3.

S. f. flaveola — Brazil, 1. Jamaica 5 ♂♂, 5 ♀♀. Unknown, 1. Total, 12.

REMARKS.—The name *Sicalis flaveola* is based upon *Fringilla flaveola* Linné, Mus. de Geer — Surinam accepted as type-locality by Berlepsch and Hartert (Nov. zool., 1902, 9, p. 27). We have no Surinam specimens for comparison, but assume that the Brazilian and Jamaican material at our disposal represents true *flaveola* with sufficient exactness. Our Brazilian specimen, although serviceable for measurements, is rather old and the colors may be slightly dulled. For this reason we have made comparisons chiefly with the Jamaican material. It must be remembered that the species is not a native of Jamaica, but was introduced from South America some time ago. Gosse in his *Birds of Jamaica* gives an account of its introduction from "Madeira" by a man named Shakespeare, as communicated to him by Mr. Richard Hill, but he suggested that the birds may have been brought from Brazil.

The measurements given by Tackzanowski (Orn. Perou, 1886, 3, p. 56) for the Peruvian bird — wing ♂, 77–78; ♀, 76 — are somewhat smaller than those of the specimens collected by Noble, but still appreciably larger than those of our Jamaican and Brazilian birds, or the Brazilian specimen mentioned by Cory (*Birds of the West Indies*, 1889, p. 100).

Tackzanowski (*loc. cit.*) describes the female as having a smaller, less orange front. From our material, however, assuming the specimens to have been correctly sexed by the collectors, we cannot detect any difference whatever between the male and female, in coloration or in measurements.